



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,743	02/20/2004	Shin Aoki	6453P039	7417
8791 7590 09/03/2008 BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040				
EXAMINER				
YEH, EUENG NAN				
ART UNIT		PAPER NUMBER		
2624				
MAIL DATE		DELIVERY MODE		
09/03/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/783,743

Applicant(s)

AOKI ET AL.

Examiner

EUENG-NAN YEH

Art Unit

2624

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 23-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 23-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

FINAL ACTION

Response to Amendment

1. The following Office Action is responsive to the amendment and remarks received on July 17, 2008. Claims 1-21 and 23-32 remain pending

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-21 and 23-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Sano et al. (US 2003/0068089 A1) and Igarashi et al. (US 6,484,195 B1).

Regarding claim 1, Sano discloses an image reproducing system for displaying a moving image ("The image data to be processed by the embodiment of the present invention is not only of a simple still image but also of a motion picture or animation in a form of successive still images, or the like" in paragraph 81, line 10; "A code sequence ... may preferably be any type of one distributed widely based on a standard like JPEG2000 (ISO/IEC FCD 15444-1), or Motion-JPEG2000 (ISO/IEC FCD 15444-3) ..." in paragraph 84, line 1) , comprising:

a reproduction apparatus to display the moving image (as depicted in figure 37 or figure 7, numeral 20 is the reproduction apparatus; "according to the embodiment of the present invention, it is possible to reproduce a smooth motion without frame omission. Furthermore, it becomes also possible to search the contents by viewing a thumbnail motion picture" in paragraph 85, line 5. Numeral 53 is the display);

a transmission apparatus to store and transmit the compressed data of the moving image to the reproduction apparatus (as depicted in figure 7, numeral 40 is the transmission apparatus which stores, numeral 52, and transmits the compressed data of the moving image, numeral 41, to the reproduction apparatus #20);

via a network (as depicted in figure 7, numeral 50 is the communications network. See also figure 37, numeral 50: "FIG. 37 shows a block diagram showing electric connection in the system described with reference to FIG. 7 in one example. This system performs various operations ... a predetermined communications interface 213 communicates with the communications network 50, and an operation panel 214 receives various types of operations from a user, which are then connected by a bus 215" in Sano paragraph 108, line 1. Thus, Sano teaches the concept of communication interface such that data can communicate through network);

the reproduction apparatus comprises:

a display to display the moving image in a window thereof (as depicted in figure 7, numeral 53);

a reproduction condition receiving unit (figure 7, numeral 29 "the control unit 29 controls the code sequence creation device 40 according to the mode specified by the user

through the display mode specification unit 54" in paragraph 105, line 18) to receive a reproduction condition input by a user (figure 7, numeral 54), wherein the reproduction condition indicates a condition for displaying the moving image (as depicted in figure 7, numeral 54 includes display size such as full display or thumbnail, display range such as specified area, and color component such as grayscale);

a reproduction condition sending unit (figure 7, numeral 29) to send the reproduction condition to the transmission apparatus via the network (as depicted in figure 7, the reproduction condition #54 received by the receiving unit #29 and then transmitted to transmission apparatus #40);

a compressed data stream receiving unit (figure 7, numeral 21) to receive the compressed data stream from the transmission apparatus via the network (figure 7, data flow from numerals 41 to 21);

a decompression unit to decompress the compressed data stream into the moving image (as depicted in figure 7, numerals 24, 25, and 26 are the decompression units used);

wherein the transmission apparatus comprises:

a memory to store the compressed data (as depicted in figure 7, numeral 52: "The code sequence thus given and processed is obtained by acquiring the code data stored in a storage unit 52 of a data storage device 51 through a communications network 50" in paragraph 105, line 24);

a reproduction condition receiving unit to receive the reproduction condition sent from the reproduction apparatus via the network (as depicted in figure 7, numeral 29);

a reconfiguration method determination unit (figure 7, numeral 42) determine a reconfiguration method based on the reproduction condition (as depicted in figure 7, numeral 54 to get reproduction condition), a processing capacity of the reproduction apparatus ("...it is also possible that, when a request is given by a client device via the network, the image provision system detects the capability of the client device for processing code sequences, selects a form of new code sequence which is beforehand created and stored, suitable to the thus-detected capability of the client device ..." in paragraph 97, line 14), wherein the reconfiguration method defines a method for reconfiguration of the compressed data stream (as depicted in figure 7, numeral 42 defines the reconfiguration of the compressed data stream: "a level number calculation unit 43, an area calculation unit 44, a component calculation unit 45, and an operation order calculation unit 46" in paragraph 103, line 12, to change the reproduction condition into a reconfiguration method);

a reconfiguration unit (as depicted in figure 7, numeral 41) to reconfigure the compressed data stored in the memory, without decompressing the compressed data ("... 41 (figure 7) which creates a code sequence ..." in paragraph 103, line 9), based on the reconfiguration method;

a reconfigured compressed data sending unit to send the reconfigured compressed data to the reproduction apparatus via the network (as depicted in figure 7, unit 41 sending compressed data to reproduction apparatus #20).

Sano does not explicitly disclose the traffic condition in the communication network.

Igarashi, in the same field of endeavor of data transmission ("provide a server and a terminal for excellent transmission/reception of a moving image" at column 1, line 43), discloses a way to change the data size to endure data can be transferred in realtime "...when video image obtained by the camera is transferred in realtime as a moving image, the data amount is reduced in accordance with the degree of traffic congestion on the communication line. This avoids at least the inconvenience that the video image cannot be transferred in "realtime" ... the size of masked area is changed in accordance with the degree of traffic congestion on the communication line. Note that as the masked area is enlarged, the image quality degrades, however, a moving image can be transferred in realtime ..." at column 19, line 23.

It would have been obvious at the time the invention was made to one of ordinary skill in the art would have been motivated to include the image reproducing system Sano made with capability to adjust data size based on the traffic in the communication network as taught by Igarashi, in order to the data "can be transferred in realtime" at column 19, line 46.

Regarding claim 8, the Sano and Igarashi combination teaches an image reproducing system for reproducing a moving image from an encoded data stream encoded in accordance with a coding method ("The image data to be processed by the embodiment of the present invention is not only of a simple still image but also of a motion picture or animation in a form of successive still images, or the like" in Sano paragraph 81, line 10; "A code sequence ... may preferably be any type of one

distributed widely based on a standard like JPEG2000 (ISO/IEC FCD 15444-1), or Motion-JPEG2000 (ISO/IEC FCD 15444-3) ..." in Sano paragraph 84, line 1), the encoded data stream being reconfigurable without decoding ("According to the present invention, as a given code sequence to be decompressed is modified in a various manner before being decompressed" in Sano paragraph 19, line 1), comprising: a reproduction apparatus to reproduce the moving image (as depicted in Sano figure 37 or figure 7, numeral 20 is the reproduction apparatus; "according to the embodiment of the present invention, it is possible to reproduce a smooth motion without frame omission. Furthermore, it becomes also possible to search the contents by viewing a thumbnail motion picture" in paragraph 85, line 5); a transmission apparatus to transmit the encoded data stream to the reproduction apparatus (as depicted in Sano figure 7, numeral 40 is the transmission apparatus which transmits encoded data stream from #41 to the reproduction apparatus #20); the transmission apparatus being connected to the reproduction apparatus via a network (as depicted in Sano figure 7, the communication channel is the link between transmission apparatus, such as #41 #42, and reproduction apparatus, such as #21 #29; also numerals 30 and 50 are communication networks); the reproduction apparatus further comprises: a reproduction condition receiving unit (Sano figure 7, numeral 29 "the control unit 29 controls the code sequence creation device 40 according to the mode specified by the user through the display mode specification unit 54" in paragraph 105, line 18) to receive a reproduction condition input by a user (Sano figure 7, numeral 54), the

reproduction condition indicating a condition for displaying the moving image (as depicted in Sano figure 7, numeral 54 includes display size such as full display or thumbnail, display range such as specified area, and color component such as grayscale) and being transmitted to the transmission apparatus via the network (as depicted in Sano figure 7, the reproduction condition #54 received by the receiving unit #29 and then transmitted to transmission apparatus #40);

a reconfiguration method determination unit (as depicted in Sano figure 37, numeral 20 is the reproduction apparatus, numeral 211 is the CPU: "... the CPU 211 performs based on this animation program realizes various functions of the code sequence creation device 40" in paragraph 110, line 5 where the CPU211 can be the reconfiguration method determination unit) determine a reconfiguration method based on the reproduction condition, a processing capacity of the production apparatus and traffic in the network (discussed in claim 1 for the bases of reconfiguration method determination), wherein the reconfiguration method defines a method for reconfiguration of the encoded data stream (as depicted in Sano figure 7, numerals 43, 44, 45, and 46 defines the reconfiguration of the encoded data stream: "a level number calculation unit 43, an area calculation unit 44, a component calculation unit 45, and an operation order calculation unit 46" in paragraph 103, line 12, to change the reproduction condition into a reconfiguration method);

the transmission apparatus further comprises:

a reconfiguration unit (as depicted in Sano figure 7, numeral 41) to reconfigure the encoded data stream to be transmitted to the reproduction apparatus via the network

based on the reconfiguration method determined by the determination unit (as depicted in Sano figure 7, "... 41 which creates a code sequence ..." in paragraph 103, line 9. Furthermore, #41 sending the encoded data stream to the reproduction apparatus #20).

Regarding claim 15, the Sano and Igarashi combination teaches an image reproducing system comprising:

- a reproduction apparatus to display the moving image (as depicted in Sano figure 37 or figure 7, numeral 20 is the reproduction apparatus; "according to the embodiment of the present invention, it is possible to reproduce a smooth motion without frame omission. Furthermore, it becomes also possible to search the contents by viewing a thumbnail motion picture" in Sano paragraph 85, line 5. Numeral 53 is the display);
- a transmission apparatus to transmit the reconfigured compressed to the reproduction apparatus (as depicted in Sano figure 7, numeral 40 is the transmission apparatus which stores, numeral 52, and transmits the compressed data of the moving image, numeral 41, to the reproduction apparatus #20),
- via a network (as depicted in Sano figure 7, numeral 50 is the communications network.

See also figure 37, numeral 50: "FIG. 37 shows a block diagram showing electric connection in the system described with reference to FIG. 7 in one example. This system performs various operations ... a predetermined communications interface 213 communicates with the communications network 50, and an operation panel 214 receives various types of operations from a user, which are then connected by a bus

215" in Sano paragraph 108, line 1. Thus, Sano teaches the concept of communication interface such that data can communicate through network);

the reproduction apparatus comprises:

a display to display a moving image in a window on the display (as depicted in Sano figure 7, numeral 53 for display);

a reproduction condition receiving unit (Sano figure 7, numeral 29 "the control unit 29 controls the code sequence creation device 40 according to the mode specified by the user through the display mode specification unit 54" in paragraph 105, line 18) to receive a reproduction condition input by a user (Sano figure 7, numeral 54), wherein the reproduction condition indicates a condition for displaying the moving image (as depicted in Sano figure 7, numeral 54 includes display size such as full display or thumbnail, display range such as specified area, and color component such as grayscale);

a reconfiguration method determination unit (as depicted in Sano figure 37, numeral 20 is the reproduction apparatus, numeral 211 is the CPU: "... the CPU 211 performs based on this animation program realizes various functions of the code sequence creation device 40" in paragraph 110, line 5 where the CPU211 can be the reconfiguration method determination unit) determine a reconfiguration method based on the reproduction condition, a processing capacity of the production apparatus and traffic in the network (discussed in claim 1 for the bases of reconfiguration method determination), wherein the reconfiguration method defines a method for reconfiguration of the compressed data stream (as depicted in Sano figure 7, numerals

43, 44, 45, and 46 defines the reconfiguration of the compressed data stream: "a level number calculation unit 43, an area calculation unit 44, a component calculation unit 45, and an operation order calculation unit 46" in paragraph 103, line 12, to change the reproduction condition into a reconfiguration method);

a reconfiguration method sending unit to send the reconfiguration method to the transmission apparatus via the network (as depicted in Sano figure 37, numeral 213 the communications interface is the sending unit to send the reconfiguration method to transmission apparatus);

a reconfiguration compressed data stream receiving unit (Sano figure 7, numeral 21) to receive the reconfigured compressed data stream from the transmission apparatus via a network (figure 7, data flow from numerals 41 to 21);

a decompression unit to decompress the reconfigured compressed data stream and obtain moving image of the reconfigured compressed data stream (as depicted in Sano figure 7, numerals 24, 25, and 26 are the decompression units used);

the transmission apparatus comprising:

a memory to store compressed data stream (as depicted in Sano figure 7, numeral 52:

"The code sequence thus given and processed is obtained by acquiring the code data stored in a storage unit 52 of a data storage device 51 through a communications network 50" in paragraph 105, line 24);

a reconfiguration method receiving unit to receive the reconfiguration method sent from the reproduction apparatus via the network (as depicted in Sano figure 7, numeral 29 to receive the reconfiguration method sent from the reproduction apparatus #20);

a reconfiguration unit (as depicted in Sano figure 7, numeral 41) to generate the reconfigured compressed data from the compressed data stream stored in the memory, without decompressing the compressed data stream ("... 41 (*figure 7*) which creates a code sequence ..." in paragraph 103, line 9), in response to the reconfiguration method; a reconfigured compressed data stream sending unit to send the reconfigured compressed data to the reproduction apparatus via the network (as depicted in Sano figure 7, numeral 41 sending the compressed data to reproduction apparatus #20).

Regarding claims 2, 9, and 16, the reproduction condition received by the reproduction condition receiving unit includes at least one of a display size, a display range, image quality, a color component, and a frame rate (as depicted in Sano figure 7, numeral 29 is the reproduction condition receiving unit which receives input conditions, numeral 54, including display size such as full display or thumbnail, display range such as specified area, and color component such as grayscale).

Regarding claims 3, 10, and 17, the reproduction condition receiving unit (Sano figure 7, numeral 29) adjusts the display size included in the reproduction condition in response to the user input for changing a window size in which the moving image is displayed (as depicted in figure 8, the image size #61 will be adjusted to numeral 64 in response to the user's operation for changing a window size to #63).

Regarding claims 4, 11, and 18, the reproduction condition receiving unit (Sano figure 7, numeral 29) changes the display size included in the reproduction condition in response to the user input for selecting a window in which the moving image is displayed (as depicted in Sano figure 8, the image can be displayed with various reduction rate in response to various display size. As discussed in paragraphs 113 and 114, a displayed image can change to a new display size once selected).

Regarding claims 5, 12, and 19, the reproduction condition receiving unit adjusts the display range included in the reproduction condition in response to the user input for panning and tilting (as depicted in Sano figure 7, numeral 54 which allows user to input specified area and perform animation. Thus, allows the moving range to be displayed from right to left, i.e. panning, and up and down, i.e. tilting).

Regarding claims 6, 13, and 20, the reproduction condition receiving unit adjusts the display range included in the reproduction condition in response to the user input for zooming (as depicted in Sano figure 7, numeral 54 which allows user to input specified area and perform animation. Thus, allows the moving range to be displayed expanding and reducing, i.e. zooming).

Regarding claims 7, 14, and 21, the reproduction condition receiving unit adjusts the image quality and the frame rate in the reproduction condition in response to the user input for adjusting a balance between the image quality and the frame rate (the

code sequence modified to reduce the code size before transmission: "According to the present invention, as a given code sequence to be decompressed is modified in a various manner before being decompressed ..." in Sano paragraph 19, line 1; "... the code sequence is sent to a remote device via communications network or the like, by thus reducing the code mount beforehand, it becomes possible to effectively reduce the load to be borne by the communications facilities and also to effectively reduce the traffic in the communications network" in Sano paragraph 19, line 10. Thus, the reproduction condition receiving unit will balance out the quality and the frame rate to effectively reduce the traffic in the communications network).

Regarding claim 23, a reproduction apparatus comprising:
a reproduction condition receiving unit (Sano figure 7, numeral 29 "the control unit 29 controls the code sequence creation device 40 according to the mode specified by the user through the display mode specification unit 54" in paragraph 105, line 18) to receive a reproduction condition input by a user (Sano figure 7, numeral 54), the reproduction condition indicating a condition for displaying the moving image (as depicted in Sano figure 7, numeral 54 includes display size such as full display or thumbnail, display range such as specified area, and color component such as grayscale) and being transmitted to the transmission apparatus via a network (as depicted in Sano figure 7, the reproduction condition #54 received by the receiving unit #29 and then transmitted to transmission apparatus #40);

a reconfiguration method determination unit (as depicted in Sano figure 37, numeral 20 is the reproduction apparatus, numeral 211 is the CPU: "... the CPU 211 performs based on this animation program realizes various functions of the code sequence creation device 40" in paragraph 110, line 5 where the CPU211 can be the reconfiguration method determination unit) to determine a reconfiguration method based on the reproduction condition, a processing capacity of the production apparatus and traffic in the network(discussed in claim 1 for the bases of reconfiguration method determination), wherein the reconfiguration method defines a method for reconfiguration of the encoded data stream (as depicted in Sano figure 7, numerals 43, 44, 45, and 46 defines the reconfiguration of the encoded data stream: "a level number calculation unit 43, an area calculation unit 44, a component calculation unit 45, and an operation order calculation unit 46" in paragraph 103, line 12, to change the reproduction condition into a reconfiguration method), and wherein the reproduction apparatus (as depicted in Sano figure 7, numeral 20 or figure 37 numerals 20) transmits the reconfiguration method (Sano figure 7, numerals 43, 44, 45, and 46) determined by the reconfiguration method determination unit (Sano figure 37, numeral 211) to the transmission apparatus via the network (Sano figure 7, numeral 40 wherein Sano teaches the concept of communication interface as shown in figure 37, numeral 213 to communicate data through network), and receives an encoded data stream (Sano figure 7, from numeral 41 to numeral 21) reconfigured by the transmitted reconfiguration method (Sano figure 7, numerals 43, 44,

45, and 46) from the transmission apparatus via the network (Sano figure 7, numeral 40).

Regarding claim 24, a transmission apparatus for transmitting an encoded data stream compressed in accordance with JPEG 2000 to a reproduction apparatus connected thereto via a network, comprising:

a reconfiguration method determination unit (as discussed in claim 1 that Sano figure 7, numeral 42 is the determine unit) determine a reconfiguration method based on the reproduction condition, a processing capacity of the production apparatus and traffic in the network (discussed in claim 1 for the bases of reconfiguration method determination), wherein

the reproduction condition indicating a condition for displaying the moving image (as depicted in Sano figure 7, numeral 54 includes display size such as full display or thumbnail, display range such as specified area, and color component such as grayscale). and further wherein

the reconfiguration method defines a method for reconfiguration of the encoded data stream (as depicted in Sano figure 7, the encoded data stream is reconfigured by the reconfiguration method #43, #44, #45, and #46 and the reconfiguration method is based on the reproduction condition #54 set by the setting unit #29) and

a reconfiguration unit (Sano figure 7, numeral 41) to reconfigure the encoded data stream (as depicted in Sano figure 7, numeral 41: "... 41 which creates a code sequence ..." in paragraph 103, line 9), to be transmitted to the reproduction apparatus

via the network based on the reconfiguration method determined by the determination unit (as depicted in figure 7, unit 41 sending compressed data to reproduction apparatus #20).

Regarding claim 25, a method of reproducing a moving image encoded into an encoded data stream in accordance with JPEG 2000, comprising:

receiving a reproduction condition input by a user, the reproduction condition indicating a condition for displaying the moving image (as depicted in Sano figure 7, numeral 54 as an user input reproduction condition which includes display size such as full display or thumbnail, display range such as specified area, and color component such as grayscale);

determine a reconfiguration method based on the reproduction condition, a processing capacity of the production apparatus and traffic in a network (discussed in claim 1 for the bases of reconfiguration method determination), wherein the reconfiguration method defines a method for reconfiguration of the encoded data stream (as depicted in Sano figure 7, numeral 42 defines the reconfiguration of the encoded data stream: "a level number calculation unit 43, an area calculation unit 44, a component calculation unit 45, and an operation order calculation unit 46" in paragraph 103, line 12, to change the reproduction condition into a reconfiguration method);

reconfiguring the encoded data stream (as depicted in Sano figure 7, the reconfiguration unit 41: "... 41 which creates a code sequence ..." in paragraph 103, line 9) based on

the determined reconfiguration method (Sano figure 7, numerals 43, 44, 45, and 46 are reconfiguration methods); and reproducing the moving image from the reconfigured encoded data stream (as depicted in Sano figure 7, the reconfigured encoded data stream transmitted from #41 to #21 then decoded #24 and then displayed #53. "according to the embodiment of the present invention, it is possible to reproduce a smooth motion without frame omission. Furthermore, it becomes also possible to search the contents by viewing a thumbnail motion picture" in paragraph 85, line 5).

Regarding claim 26, the reproduction condition includes at least one of a display size, a display range, image quality, a color component, and a frame rate (as depicted in Sano figure 7, reproduction condition 54 includes display size such as full display or thumbnail, display range such as specified area, and color component such as grayscale).

Regarding claim 27, the display size included in the reproduction condition is adjusted in response to the user input for changing a window size in which the moving image is displayed (discussed in claim 3).

Regarding claim 28, the display size included in the reproduction condition is changed in response to the user input for selecting a window in which the moving image is displayed (as depicted in Sano figure 8, the image can be displayed with various

reduction rate in response to various display size. As discussed in Sano paragraphs 113 and 114, a displayed image can change to a new display size once selected).

Regarding claim 29, the display range included in the reproduction condition is changed in response to the user input for panning and tilting (as depicted in Sano figure 7, numeral 54 which allows user to input specified area and perform animation. Thus, allows the moving range to be displayed from right to left, i.e. panning, and up and down, i.e. tilting).

Regarding claim 30, the display range included in the reproduction condition is adjusted in response to the user input for zooming (as depicted in Sano figure 7, numeral 54 which allows user to input specified area and perform animation. Thus, allows the moving range to be displayed expanding and reducing, i.e. zooming).

Regarding claim 31, the image quality and the frame rate in the reproduction condition is adjusted in response to the user input for adjusting a balance between the image quality and the frame rate (discussed in claim 7).

Regarding claim 32, the Sano and Igarashi combination teaches an image reproducing system having one or more computer- readable storage medium storing instructions which, when executed by a computer, cause the computer to perform a method of reproducing a moving image encoded into an encoded data stream in

accordance with JPEG 2000 (discussed in claim 1. See also "the present invention can be embodied by means of one or a plurality of general-purpose computer, i.e., a personal computer, or the like, by installing one or a plurality of software programs thereinto for causing the computer to execute the various functions described above ..."

in Sano paragraph 101, line 1) by:

displaying the moving image (Sano figure 7, numeral 53);

transmitting a reconfigured compressed data stream to a reproduction apparatus (Sano figure 7, data flow from numerals 41 to 21) via a network (as depicted in Sano figure 7, numeral 50 is the communications network);

wherein displaying the moving image comprises:

receiving a reproduction condition input by a user (Sano figure 7, numeral 29 "the control unit 29 controls the code sequence creation device 40 according to the mode specified by the user through the display mode specification unit 54" in paragraph 105, line 18), wherein the reproduction condition indicates a condition for displaying the moving image (as depicted in figure 7, numeral 54 includes display size such as full display or thumbnail, display range such as specified area, and color component such as grayscale);

determine a reconfiguration method based on the reproduction condition, a processing capacity of the production apparatus and traffic in the network (discussed in claim 1 for the bases of reconfiguration method determination), wherein the reconfiguration method defines a method for reconfiguration of the compressed data stream (as depicted in Sano figure 7, numeral 42 defines the reconfiguration of the compressed data stream:

"a level number calculation unit 43, an area calculation unit 44, a component calculation unit 45, and an operation order calculation unit 46" in paragraph 103, line 12, to change the reproduction condition into a reconfiguration method);

sending the reconfiguration method to a transmission apparatus via a network (as depicted in Sano figure 37, numeral 213 the communications interface will send the reconfiguration method to transmission apparatus);

receiving the reconfigured compressed data stream from the transmission apparatus via the network (Sano figure 7, data flow from numerals 41 to 21);

decompressing the reconfigured compressed data stream and obtaining a moving image of the reconfigured compressed data stream (as depicted in Sano figure 7, numerals 24, 25, and 26 are the decompression units used);

wherein transmitting the reconfigured compress data stream comprises:

storing the compressed data stream (as depicted in Sano figure 7, numeral 52: "The code sequence thus given and processed is obtained by acquiring the code data stored in a storage unit 52 of a data storage device 51 through a communications network 50" in paragraph 105, line 24);

receiving the reconfiguration method sent from the reproduction apparatus (as depicted in Sano figure 7, numeral 29 to receive the reconfiguration method sent from the reproduction apparatus #20);

generating the reconfigured compressed data from the compressed data stream, without decompressing the compressed data stream, in response to the reconfiguration

method (as depicted in Sano figure 7, numeral 41: "... 41 which creates a code sequence ..." in paragraph 103, line 9);
sending the reconfigured compressed data to the reproduction apparatus via the network (as depicted in Sano figure 7, numeral 41 sending the compressed data to reproduction apparatus #20. Sano teaches the concept of communication interface as shown in figure 37, numeral 213 to communicate data through network).

Response to Arguments

4. Summary of Applicant's Remark:

"The Examiner notes that Figure 7, item 50 of Sano teaches a communication channel, item 20 teaches the reproduction apparatus, and item 40 teaches the transmission apparatus (See Office Action, pg. 3). However, as illustrated in Figure 7 of Sano, items 20 and 40 are not connected via item 50 and therefore do not communicate through item 50. The subject claims have been amended to recite that a reproduction condition, compressed data stream, and the reconfigured compressed data are transmitted via the network" at response page 12, last partial paragraph.

Examiner's Response:

Reference to Sano figure 37, depicted one example to explain figure 7, numeral 50: "FIG. 37 shows a block diagram showing electric connection in the system described with reference to FIG. 7 in one example. This system performs various operations ... a predetermined communications interface 213 communicates with the communications network 50, and an operation panel 214 receives various types of

operations from a user, which are then connected by a bus 215" in Sano paragraph 108, line 1. Thus, Sano teaches the concept of communication interface such that data can communicate through network and processed by various operations. It would be obvious that data such as reproduction condition, compressed data stream, and reconfigured compressed data, without departing from the spirit of Sano's methodology, can be transmitted through network and received and processed by various operations. Refer to the rejections above.

5. Summary of Applicant's Remark:

"The Applicant further notes that the subject claims recite "a reconfiguration method determination unit to determine a reconfiguration method based on the reproduction condition, a processing capacity of the reproduction apparatus and traffic in the network" and the cited references do not teach or suggest a reconfiguration method based on all three of the above limitations" at response page 13, line 2.

Examiner's Response:

Limitation 1, "the reproduction condition": Sano figure 7, numeral 54 is the user's input reproduction condition.

Limitation 2, "processing capacity of the reproduction apparatus": "...when a request is given by a client device via the network, the image provision system detects the capability of the client device for processing code sequences ..." in Sano paragraph 97, line 14.

Limitation 3, "traffic in the network": "...when video image obtained by the camera is transferred in realtime as a moving image, the data amount is reduced in accordance with the degree of traffic congestion on the communication line ..." at Igarashi column 19, line 23.

6. Other Pertinent Reference:

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Heuvelman (US 2003/0065803 A1) disclosed an intelligent wireless network system allows the service provider to send a tailor made data stream.

Conclusion

7. Applicant's amendment is rejected in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eueng-nan Yeh whose telephone number is 571-270-1586. The examiner can normally be reached on Monday-Friday 8AM-4:30PM EDT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on 571-272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eueng-nan Yeh
Assistant Patent Examiner
2624
/E.Y./

/Vikkram Bali/

Supervisory Patent Examiner, Art Unit 2624